

IN THE CLAIMS

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1-2. (cancelled)

3. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:
a base having a relatively forward end and a relatively rearward end;
a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;

a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate;

a ratchet mechanism connected to said base and said sleeve, said ratchet mechanism operable to move said sleeve with respect to said base, said shaft and said plate; and

a handle including an actuator movably connected to said base, said actuator operating said ratchet mechanism when said actuator is moved relative to said base.

4. (original) The apparatus of claim 3, wherein said actuator is pivotably connected to said base, said actuator operating said ratchet mechanism when said actuator is pivoted relative to said base.

5. (original) The apparatus of claim 4, wherein said handle further includes a stock rigidly connected to said base.
6. (original) The apparatus of claim 5, further comprising at least one spring between said actuator and said stock, said at least one spring tending to bias the actuator and stock apart.
7. (original) The apparatus of claim 6, wherein said at least one spring comprises a leaf spring.
8. (original) The apparatus of claim 6, wherein said at least one spring comprises a first leaf spring connected to said actuator and a second leaf spring connected to said stock, wherein said leaf springs are connected together so as to bias the actuator and stock apart.
9. (original) The apparatus of claim 6, further comprising a stop connected to said base, said stop having a first position connected to said ratchet mechanism so that movement in a rearward direction of said sleeve is limited, and a second position disengaged from said ratchet mechanism so that said sleeve can be moved in a rearward direction.
10. (previously presented) The apparatus of claim 9, wherein said stop is biased toward said first position.
11. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:

a base having a relatively forward end and a relatively rearward end;

a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;

a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate;

a ratchet mechanism connected to said base and said sleeve, said ratchet mechanism operable to move said sleeve with respect to said base, said shaft and said plate; and

a stop connected to said base, said stop having at least one position connected to said ratchet mechanism in which movement in a rearward direction of said sleeve is limited, and a position disengaged from said ratchet mechanism so that said sleeve can be moved in a rearward direction.

12. (original) The apparatus of claim 11, wherein said stop comprises at least one pawl that is pivotable between said at least one position connected to said ratchet mechanism and said position disengaged from said ratchet mechanism.

13. (original) The apparatus of claim 12 wherein said stop comprises three pawls capable of operating independently of each other.

14. (original) The apparatus of claim 13 wherein said pawls are nested.
15. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:
a base having a relatively forward end and a relatively rearward end;
a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;
a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant; and
a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate,
wherein said aperture of said plate is at least partially tapered.
16. (original) The apparatus of claim 15, wherein said aperture of said plate has a constant diameter section.
17. (original) The apparatus of claim 15, wherein said plate includes a roughened surface adjacent said aperture.
18. (previously presented) The apparatus of claim 15, wherein said aperture of said plate is uniformly tapered.

19. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:
- a base having a relatively forward end and a relatively rearward end;
 - a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;
 - a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;
 - a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate; and
 - wherein said plate includes a rounded surface and said shaft includes an indentation, and said indentation and said rounded surface are adjacent each other.

20. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:
- a base having a relatively forward end and a relatively rearward end;
 - a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;
 - a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate; and

wherein said plate includes a rounded surface that facilitates pivoting of said plate.

21. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:

a base having a relatively forward end and a relatively rearward end;

a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;

a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate; and

wherein said sleeve includes an end portion adapted to contact at least one of the group consisting of a spinal rod, an orthopedic connector, and an orthopedic plate.

22. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:

a base having a relatively forward end and a relatively rearward end;

a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;

a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate; and

wherein said shaft includes an elongated portion and a plunger portion connected to each other.

23. (original) The apparatus of claim 22, wherein said elongated portion includes a tongue and said plunger portion includes a groove, and said tongue is at least partially within said groove.

24. (original) The apparatus of claim 22, further comprising at least one spring abutting said plunger to bias said plunger toward said relatively forward end of said base.

25. (original) The apparatus of claim 22, further comprising at least two springs abutting said plunger to bias said plunger toward said relatively forward end of said base.

26. (original) The apparatus of claim 25, wherein said springs are substantially concentric.

27. (previously presented) An apparatus for connecting to an orthopedic implant, comprising:

a base having a relatively forward end and a relatively rearward end;

a shaft connected to said base, said shaft being slidable with respect to said base between first and second positions;

a plate having an aperture, said plate being pivotably connected to said shaft, such that when said shaft is in said first position said plate is in a position for locking to an implant, and when said shaft is slid to said second position, said plate pivots to a position for accepting insertion of a part of an implant;

a sleeve at least partially surrounding said shaft and being slidable along said shaft and slidable with respect to said base and said plate; and

wherein said base comprises an upper base portion and a lower base portion connected together.

28. (original) The apparatus of claim 27, further comprising a closure connected to said upper base portion and said lower base portion, wherein closing said closure holds said base portions together, and opening said closure allows separation of at least a part of said upper base portion from at least a part of said lower base portion.

29. (original) The apparatus of claim 28, wherein said closure includes a latch.

30. (original) The apparatus of claim 28, wherein said base portions are pivotably connected, whereby opening said closure allows said base portions to pivot with respect to each other.

31. (original) The apparatus of claim 27, wherein said base portions are pivotably connected together.

32-41. (cancelled)

42. (previously presented) An apparatus for use in orthopedic surgery, comprising:
a plate member having first and second edges substantially opposite each other and an aperture;

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate;

a sleeve slidable with respect to said shaft; and

a base connected to said shaft,

wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant.

43. (original) The apparatus of claim 42, further comprising an actuator movably connected to said base, said actuator operating said ratchet mechanism when said actuator is moved relative to said base.

44. (original) The apparatus of claim 42, further comprising a stock connected to said base.

45. (original) The apparatus of claim 44, further comprising a first leaf spring connected to said actuator and a second leaf spring connected to said stock, wherein said leaf springs are connected together so as to bias the actuator and stock apart.

46. (previously presented) The apparatus of claim 70 further comprising a stop connected to said base, said stop having at least one position connected to said ratchet mechanism in which movement in a rearward direction of said sleeve is limited, and a position disengaged from said ratchet mechanism so that said sleeve can be moved in a rearward direction.

47. (original) The apparatus of claim 46, wherein said stop comprises at least one pawl that is pivotable between said at least one position connected to said ratchet mechanism and said position disengaged from said ratchet mechanism.

48. (original) The apparatus of claim 47 wherein said stop comprises three pawls capable of operating independently of each other.

49. (original) The apparatus of claim 48 wherein said pawls are nested.

50. (original) The apparatus of claim 42, wherein said base comprises an upper base portion and a lower base portion connected together.

51. (original) The apparatus of claim 50, further comprising a closure connected to said upper base portion and said lower base portion, wherein closing said closure holds said base portions together, and opening said closure allows separation of at least a part of said upper base portion from at least a part of said lower base portion.

52. (original) The apparatus of claim 51, wherein said closure includes a latch.

53. (original) The apparatus of claim 51, wherein said base portions are pivotably connected, whereby opening said closure allows said base portions to pivot with respect to each other.

54. (original) The apparatus of claim 50, wherein said base portions are pivotably connected together.

55. (previously presented) An apparatus for use in orthopedic surgery, comprising:
a plate member having first and second edges substantially opposite each other and an aperture; and
a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate,
wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively

closed and said plate can contact the orthopedic implant, and wherein said aperture of said plate is at least partially tapered.

56. (original) The apparatus of claim 55, wherein said aperture of said plate has a constant diameter section.

57. (previously presented) The apparatus of claim 55, wherein said aperture of said plate is uniformly tapered.

58. (previously presented) An apparatus for use in orthopedic surgery, comprising:
a plate member having first and second edges substantially opposite each other and an aperture; and

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate,

wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant, and wherein said plate includes a roughened surface adjacent said aperture.

59. (previously presented) An apparatus for use in orthopedic surgery, comprising:

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a plate member having first and second edges substantially opposite each other and an aperture; and

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate,

wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant, and wherein said plate includes a rounded surface and said shaft includes an indentation, and said indentation and said rounded surface are adjacent each other.

60. (previously presented) An apparatus for use in orthopedic surgery, comprising:

a plate member having first and second edges substantially opposite each other and an aperture; and

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate,

wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively

closed and said plate can contact the orthopedic implant, and wherein said plate includes a rounded surface that facilitates pivoting of said plate.

61. (previously presented) An apparatus for use in orthopedic surgery, comprising:
- a plate member having first and second edges substantially opposite each other and an aperture; and
- a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate,
- wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant, and wherein said shaft includes an elongated portion and a plunger portion connected to each other.

62. (original) The apparatus of claim 61, wherein said elongated portion includes a tongue and said plunger portion includes a groove, and said tongue is at least partially within said groove.

63. (original) The apparatus of claim 61, further comprising at least one spring abutting said plunger to bias said plunger toward said relatively forward end of said base.

64. (original) The apparatus of claim 61, further comprising at least two springs abutting said plunger to bias said plunger toward said relatively forward end of said base.

65. (original) The apparatus of claim 64, wherein said springs are substantially concentric.

66. (previously presented) An apparatus for use in orthopedic surgery, comprising:

a plate member having first and second edges substantially opposite each other and an aperture;

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate; and

a lever connected to said shaft, wherein operating said lever causes said shaft to move, thereby pivoting said plate, and wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant.

67. (previously presented) An apparatus for use in orthopedic surgery, comprising:

a plate member having first and second edges substantially opposite each other and an aperture;

a shaft connected to said plate member adjacent said first edge of said plate member, said shaft being movable to pivot said plate member substantially around said second edge of said plate; and

a slider connected to said shaft, wherein operating said slider causes said shaft to move, thereby pivoting said plate, and wherein said aperture is sized to allow insertion of at least part of an orthopedic implant, and wherein said plate member has a first position in which said aperture is relatively open and such insertion can be accomplished, and a second position in which said aperture is relatively closed and said plate can contact the orthopedic implant.

68. (previously presented) The apparatus of claim 47 wherein said stop comprises two pawls capable of operating independently of each other.

69. (previously presented) The apparatus of claim 42, wherein said sleeve includes an end portion adapted to contact at least one of the group consisting of a spinal rod, an orthopedic connector, and an orthopedic plate.

70. (previously presented) The apparatus of claim 42, further comprising a ratchet mechanism operable to move said sleeve with respect to said shaft and said plate.